



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,049	12/09/2003	Masatoshi Nagayama	43888-286	3002

7590 07/17/2006

MCDERMOTT, WILL & EMERY  
600 13th Street, N.W.  
Washington, DC 20005-3096

EXAMINER
----------

MARTIN, ANGELA J

ART UNIT	PAPER NUMBER
----------	--------------

1745

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/730,049

**Applicant(s)**

NAGAYAMA ET AL.

**Examiner**

Angela J. Martin

**Art Unit**

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/06</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This Office Action is responsive to the Request for Reconsideration filed on April 26, 2006. However, this rejection is made final for the following reasons of record.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al., JP 2002-319398 (machine translation).

Rejection of claims 1, 2, 4 drawn to a non-aqueous electrolyte rechargeable battery.

Watanabe et al., teach to a non-aqueous electrolyte rechargeable battery (title) comprising a positive electrode containing a mixture of a first positive electrode active material and a second positive electrode active material, the first material comprises lithium oxide containing manganese and further contains aluminum and/or magnesium; and the second material comprising  $\text{Li}_x\text{Co}_{1-y-z}\text{Mg}_y\text{Al}_z\text{O}_2$  with ranges for x, y, and z as claimed in claim 1 (abstract). It teaches the first positive electrode active material having the formula of claim 2 (abstract). It teaches the content of the second positive active material is 5 wt% or higher (claim 4).

Thus, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the abstract of Watanabe et al., teach that the range of Al is  $0.02 \leq w \leq 0.15$ . The Applicant has not shown unexpected results for a molar amount of Al less than 0.02.

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al., JP 2002-319398 (machine translation), in view of Kaneda et al., U.S. Pat. No. 6,638,662 B2.

Watanabe et al., teach a non-aqueous electrolyte rechargeable battery.

Kaneda et al., teach an end-of-charge voltage in a normal operation state is set to 4.3 V.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Kaneda et al., into the teachings of Watanabe et al., because Kaneda et al., teach an end-of-charge voltage of 4.2 V and 4.3 V, which is determined by the tester of the battery charge/discharge cycle (col. 15, lines 3-30).

### ***Response to Arguments***

4. Examiner would like to clear up item 3 of the Non-Final Rejection of 1/26/06, which was referring to a 102 (b) rejection. As can be seen by looking at the title of item 2 and the obvious statement of item 3 of 1/26/06, Examiner meant to type a 103(b) statement at the beginning of item 3.

5. Applicant's arguments filed 4/26/06 have been fully considered but they are not persuasive.

Applicant argues "the molar amount of Al being lower than 0.02, not equal to or greater than 0.02 as disclosed in the JP'398." However, "a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them **to have the same properties**. *Titanium Metal Corp. of America v. Banner* 227 USPQ 773 (Fed. Cir. 1985); *In re Woodruff* 16 USPQ 2d 1934 (Fed. Cir. 1990); *In re Aller* 105 USPQ 233 (CCPA 1955).

In addition, Applicant's unexpected results are not commensurate in scope with the presently claimed molar amounts. For instance, Examples 1-4 of Applicant requires specific molar amounts of Mg and Al, particularly 0.05 and .01, respectively; as well as specific weight ratios of first and second electrode materials wherein the first electrode material further requires a specific composition and a specific molar amount which is not currently claimed; and Applicant has not provided any other evidence to show that the limited scope of Examples 1-4 is fully applicable to the plethora of electrode materials currently claimed. That is, Applicant's unexpected results based on EXAMPLES 1-4 are not fully representative of the present subject matter at issue wherein the first electrode material is an unspecified lithiated complex oxide, the second electrode material does not circumscribe the specific electrode material of Examples 1-4; and Examples 1-4 do set out specific weight ratios for the first and the second electrode material.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela J. Martin whose telephone number is 571-272-1288. The examiner can normally be reached on Monday-Friday from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1745

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
AJM

  
PATRICK JOSEPH RYAN  
SUPERVISORY PATENT EXAMINER